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Preparing for the World Radiocommunication Conference 2007

By Thomas Kidd - April-June 2006

Unprecedented progress in the development of radiocommunication services has resulted in an increased demand for radio-frequency spectrum worldwide. Because much of the radio-frequency spectrum must be shared among nations, the International Telecommunication Union (ITU), a specialized United Nations agency, convenes World Radiocommunication Conferences (WRCs) every three to five years. These conferences consider proposals to modify the spectrum allocation tables as technology and services require.

The next conference, WRC-07, is scheduled to be held in Geneva, Switzerland, Oct. 15 through Nov. 9, 2007. All 189 member nations of the ITU are invited to prepare for, and attend these conferences. Preparations for WRC are intensive, and occur via the ITU Radiocommunications sector (ITU-R) study groups and their associated working party meetings, as well as in national and regional forums.

In the United States, the National Telecommunications and Information Administration (NTIA) is responsible for coordinating the executive agencies' participation in the ITU's World Radiocommunication Conferences. The Federal Communications Commission (FCC) coordinates this effort for U.S. private sector interests. Within the Western Hemisphere, the United States participates within the Inter-American Telecommunication Commission to develop support for U.S. objectives and proposals.

The NTIA receives recommendations for U.S. preliminary views and proposals for WRCs from the Radio Conference Subcommittee (RCS), a subcommittee of the Interdepartmental Radio Advisory Committee (IRAC). This subcommittee is tasked with preparing for WRCs, including the development of recommended U.S. proposals.

NTIA determines which proposals will be put forward by the executive branch to be considered in the national preparation process. NTIA also works with the FCC and the State Department to create the United States of America Preliminary Views and U.S. Proposals for the WRCs.

On behalf of the Department of the Navy (DON), representatives from the DON Chief Information Officer collaborate with other military department personnel, Department of Defense (DoD), miscellaneous government agency staff and commercial participants.

WRC-related documents, which will serve as the technical baseline for decisions to be made at WRC-07 by member nations, are developed through various U.S. working parties and presented as U.S. views to the ITU-R. Numerous meetings are held within DoD to reflect its interests in the various agenda items.

During the upcoming WRC-07, there are a number of agenda items directly affecting Navy and Marine Corps radio-frequency spectrum use. One item, based on studies concerning wireless services, is referred to as International Mobile Telecommunications Advanced (IMT-Advanced). The IMT-Advanced is a follow-on effort of the Third Generation Wireless (3G) project, which led to spectrum auctions and systems relocation. The frequency band 3400-3700 has been identified as a candidate to support this commercial effort.

The DON CIO has been engaged in international discussions since the item was reported by the 2003 World Radiocommunication Conference. The DON has serious concerns related to this proposal since the United States and many of its allies, including Japan, Combined Communications-Electronics Board nations (Australia, Canada, United Kingdom and New Zealand), France, Norway, Spain, Saudi Arabia, and NATO operate critical airborne and shipborne radar systems in the 3400-3700 MHz band.

Previous studies have proven that due to the physics of radar, most other radio frequency-based applications cannot operate with stability in the same band. A variety of IMT-Advanced scenarios could cause displacement of U.S. Naval systems and significant disruption in radar operations throughout the Navy and Marine Corps. The selection of operating bands for IMT-Advanced remains a high priority issue for the DON, and the DON CIO expends considerable resources to nurture a solution that is acceptable to Departmental objectives.

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Although a few of the proposed changes enhance DON and DoD use of the spectrum, several proposals, in addition to IMT-Advanced, may introduce new services affecting vital land mobile, radar and satellite bands. In fact, the space science community is seeking increased protection that would adversely affect current DON and DoD assignments and operations.

The watchword for international discussions is constant vigilance!

Tom Kidd is the director for DON Strategic Spectrum Policy for the Department of the Navy Chief Information Officer.

TAGS: Spectrum, Telecommunications